

Notice of Allowability

Application No.

09/513,605

Applicant(s)

SIDERS, KEITH E.

Examiner

Ronald D Hartman Jr.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Amendment filed on 9/17/2004.
2. ☒ The allowed claim(s) is/are 1-17.
3. ☒ The drawings filed on 25 February 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 9/17/2004
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

1. This action is in response to the Amendment filed on 9/17/2004.

Allowable Subject Matter

2. Claims 1-17 are allowed.

As per claims 1-17, specifically independent claims 1, 5, 10 and 14, the prior art of record fails to teach or adequately suggest a system or method for Modbus messaging wherein a Modbus slave device comprises a means for determining if a message issued by a master is either a first or second message type, wherein this determination takes place by analyzing the first character, or prompt character, of the message. The slave device, based on the contents of the first character, will discern whether the message is a first type or second type Modbus message and will respond accordingly to the message and responds in the type of communications protocol determined by using the first character of the message. This system allows for the slave device to effectively handle more than one type of Modbus message occurring on the Modbus network, such as both the Modbus RTU and Modbus ASCII message types.

The closest available art appears to be issued to Ryanaski et al, U.S. Patent No. 5,838,750; Hays et al., U.S. Patent No. 6,678,751 and Blackett et al., U.S. Patent Application No. 2004/0138786.

Ryanaski et al. teaches a binary communication system wherein a transmitter unit sends a message, or packet, to the receiver, wherein the receiver has the ability to discern whether the message is a first type or second type. However, this system does not disclose setting control bits, as currently claimed by at least independent claims 1 and 14, and further does not teach analyzing the first character of the incoming message to determine which format the message is in, as claimed by pending claims 1, 5, 10 and 14.

Hays et al. teaches a system and method for setting frames and protocols for transmission in a UART device. Hays et al teaches that the remote device receives samples signals from a host device and that the remote device then detects the baud rate of the incoming signals. From this information, the protocol being used by the host device is also determined. Hays et al. is silent with respect to setting a control bit, as currently claimed by at least independent claims 1 and 14, and further does not teach analyzing the first character of the incoming message to determine which format the message is in, as claimed by pending claims 1, 5, 10 and 14.

Finally, Blackett et al. teaches a method and system for master/slave protocol communication in an intelligent device. This system and method contemplates the claimed invention, however, upon closer review and inspection of 09/723,564 (an application from which Blackett et al claims priority), it is noted that the communications software disclosed in 2004/0138786 is not adequately disclosed in 09/723,564. Regardless, the effective filing date of 2004/0138786 is not before the effective filing date of the instant application and therefore Blackett et al. cannot be properly used as prior art.

It is also noted that Modicon's Modbus specification, included by the applicant in an IDS filed on 9/17/2004, specifically discloses that an ASCII message is framed by using a delimiter value such as a colon ":" and teaches the RTU message using a delimiter which is a series of character times (T1, T2, T3 and T4). Therefore, the examiner must conclude that the RTU message of the instant invention differs from that of a typical RTU message since clearly the typical RTU message does not use a prompt character, but rather, a series of prompt characters.

Therefore, since the aforementioned references do not teach or adequately suggest the claimed method and system for Modbus slave device communications, independent claims 1, 5, 10 and 14 are viewed to be allowable over the prior art of

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record. Therefore, dependent claims 2-4, 6-9, 11-13 and 15-17 are allowed as being dependent on allowed base claims (claims 1, 5, 10 and 14).

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald D Hartman Jr. whose telephone number is (571) 272 - 3684. The examiner can normally be reached on Mon. - Fri., 10:00 am - 7:00 pm EST.

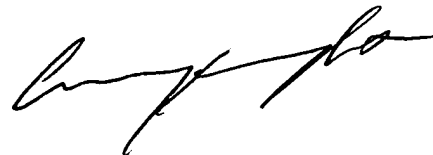
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached at (571) 272 - 3687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ronald D Hartman Jr.

Examiner

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A handwritten signature in black ink, appearing to read 'Anthony Knight', is positioned above the printed name.

Anthony Knight
Supervisory Patent Examiner
Group 3600